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*A Mercer Perspective*  
on Retirement



# Defined Benefit Plans: Still a Good Solution?

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# An evolving pension system

Defined benefit (DB) pension plans face severe challenges. Contribution requirements are escalating sharply. Accounting costs suddenly are high and volatile, while looming accounting changes threaten greater volatility. Executives question plans with unfunded liabilities and poorly defined risks. Many employees don't understand DB plans and seem to appreciate 401(k) plans more. Has the time for pension plans come and gone? Are pension plans still a good solution?

Despite serious challenges, a well-designed and well-communicated DB plan actually creates substantial value for both employer and employee, and can be a source of competitive advantage for the employer. This *Perspective* will discuss how.

## Background: A changing landscape

Most mature pension plans were established in the 1950s or 1960s. Designed to provide retirement income to long-term employees on a tax-effective basis, they help organizations retain employees, provide workers a graceful transition to retirement, and help keep direct compensation and taxes lower.

The retirement landscape changed dramatically with the passage of the Revenue Act of 1978, which added Section 401(k) to the Internal Revenue Code. When regulations were issued in 1981, employers quickly added matching 401(k) plans to their portfolio of benefits. During the bull market of the 1990s, many employees began to believe that their 401(k) plan would provide a luxurious retirement at an early age. At the same time, financial executives became accustomed to the funding holidays for pension plans delivered by the bull market.

The bear market early in this decade quickly changed these perceptions. Employees face working longer before their 401(k) plans can provide a comfortable retirement, and executives confront sharply higher contributions and expense for DB plans.

## Meeting changing needs

Americans now retire earlier, live longer, and use more medical care than any previous generation. Although extensive financial resources to ensure a secure retirement exist, the savings rate of Americans continues to plummet while the prevalence of pension plans declines.

Over the past three decades, IRAs and other defined contribution (DC) plans, such as 401(k) plans, substantially increased the resources of the individual to save on a tax-sheltered basis. Through employer contributions (matching or otherwise), they provide a transfer of assets from employer to employee. They provide incentives for employees to save, but they also place the primary burden of retirement planning on the employee and fail to help the employee assure the adequacy and continuity of retirement income.

Employer-sponsored pension plans can create significant value for both the employee and the employer by addressing the shortcomings of DC plans.

# Value creation through longevity and investment pooling

## Tapping the potential

An employer-sponsored benefit plan creates value if it provides either the same benefit for a lower cost than could otherwise be obtained or a greater benefit for the same cost. For example, employer-sponsored health and life insurance plans create value by pooling risk and purchasing power. Benefits are provided to all employees (many of whom may be uninsurable on an individual basis) at a cost lower than that at which individuals could purchase the insurance.

DB pension plans have similar characteristics, but they are often overlooked because of the deferred nature of the benefits. DB plans create value by pooling both longevity and investment risk and by reducing expenses.

## How long will you live?

Pooling longevity risk creates value in two ways, one rather easy to recognize and one quite subtle, but both significant. First, consider how long an individual will need retirement income. If your retirement fund is adequate to last the average life expectancy, you

stand a 50:50 chance of outliving your assets – not the odds most would choose for such a critical issue. But how much more is really enough? If you are satisfied with 2:1 odds that you will not outlive your assets, you will need approximately 11 percent more assets. With 4:1 odds, you would need about 20 percent more, and with 10:1 odds, at least 26 percent more.

On the other hand, an employer-sponsored DB plan that covers thousands of employees can pool the longevity risk and fund for the average life expectancy with a high level of confidence that the funds will be sufficient. The value created ranges from 10 percent to 25 percent.

The second aspect is subtler. Pooling longevity risk in a pension plan allows a plan to fund benefits more effectively even for a specific number of years. A pension plan will have some participants who die long before the average life expectancy and some who die much later. The benefits saved from (not paid to) those who die early are invested and earn income that is used to pay the benefits to participants who live past their life expectancies.

## DB value creation: Do the math

Consider a traditional DB final average pay plan providing a benefit equal to 1.1 percent of final average pay per year of service. With plan assets invested in long-term bonds expected to return 6 percent per year, the annual long-term cost of this plan would be about 6 percent of covered payroll.

An employee in this plan who begins work at age 30 with a salary of \$50,000 and annual pay increases of 4.5 percent would have a pension benefit (if employed until age 65) worth roughly \$79,000 per year – a lump sum value of \$930,000.

If the employee tried to accumulate this same value in a savings plan, investing in risk-free, long-term bonds, the annual contribution rate would need to be about 11 percent of pay.

The DB value creation is dramatic. A long-term employee receives the equivalent of an 11 percent of pay annual contribution in a DC plan that costs the employer only 6 percent of pay under the DB plan.

How is this value created? DB plans allocate significantly more value to long-term employees than to shorter-term employees. Employees who leave an employer before reaching 10 years of service get a deferred vested pension with an equivalent DC plan value of less than 3 percent of pay.

This little-appreciated fact is evident when one examines the typical lump sum payment from a pension plan. A pension benefit of \$1,000 per month at age 65, converted to a lump sum, would be about \$141,500 (determined at 5 percent interest, the current 30-year Treasury rate). If this amount is invested at 5 percent (ignoring all transaction costs), how long will it last? Approximately 17 ½ years. But the average life expectancy (male/female blended) is about 19 ½ years. The lump sum at the same investment rate will last only about 90 percent of the life expectancy.

The two longevity factors (blending longevity plus blending resources among a group) create value of 15 percent to 35 percent.

### **Investment and workplace advantages**

Investment pooling also creates significant value by offering liquidity, professional management, asset allocation, and expense reduction.

A retiree needing a monthly income must keep some funds in liquid form, perhaps cash or money market instruments, thus lowering investment income. An employer-sponsored pension plan needs a much smaller percentage of liquid funds due to the mix of active and retired participants and inflow of ongoing employer contributions.

Most DC plans rely on the individual to make investment decisions. Employer-sponsored pension plans generally have a team of investment professionals making all decisions. Individuals, particularly as they near retirement, tend to invest conservatively, to safeguard their primary retirement assets.

Employer-sponsored plans are investing millions, often billions, of dollars compared to the thousands of dollars that individuals invest. Both transaction costs and investment management costs are significantly lower for employer plans.

Consider these factors together and it is easy to understand why the typical pension plan return exceeds the typical 401(k) return by 100 – 200 basis points and sometimes much more.

A simple way to gauge the longevity and investment pooling effects is to look to the dozens of financial websites and software tools that help individuals plan for retirement. Most recommend that a retiree accumulate invested assets of 15 to 20 times the amount of annual income needed. But an employer-sponsored DB plan invested in risk-free Treasury securities would need only 12 times the annual benefit. If the employer is willing to take equity risk and invest in a diversified portfolio that might earn 8 percent, the requirement drops to only 9.4 times the annual benefit. In other words, an employer-sponsored pension plan invested in a diversified portfolio earning 8 percent over the long term can provide an annual benefit using about half the principal it would take an individual to fund the same benefit.

The DB pension plan also creates value directly for the employer. Pensions encourage continued employment, thus lowering turnover costs and helping to retain intellectual capital. Contributions are allocated primarily to those employees who stay with the organization – little is allocated to those employees who leave after a few years or long before retirement age.

DB plans deliver more consistent benefits to employees. The benefit level does not depend on the individual's investment skills or luck. DC plans produce a large dispersion of benefits based on the investment choices of the individual.

Participants who lack the knowledge, the skill, or simply the luck to be good investors are not disadvantaged in a DB plan and can expect a level of retirement income that is less exposed to the vagaries of the investment markets than self-managed funds would generate.

## Responding to critics' objections

Despite the significant value creation of DB plans, there are many serious objections that critics of these plans raise, some real and some perceived:

- **Volatile contribution requirements** – Volatility results from employers making just the minimum required contribution and investing in equities. But plan sponsors can help stabilize contributions by either (a) making higher contributions that create a cushion for contribution requirements or (b) investing primarily in fixed income securities. The trade-off here is obvious: making higher contributions diverts cash to the pension plan that is not available for other employer purposes. But higher cash contributions may actually lower the long-term cost of the plan if plan assets experience a higher tax-adjusted return than the marginal use of cash within the organization (or if the return is higher than the marginal cost of borrowing for the employer). Fixed income investments are likely to lower the long-term return of plan assets, thus raising the cost, but will generally lessen volatility.
- **Volatile expense levels** – Current accounting methods include many techniques for smoothing volatile expense. But potential accounting changes may reduce or eliminate this flexibility. Should this happen, the alternatives would probably be changes in investment policy to match assets with liabilities or living with volatile expense levels.
- **Unfunded liabilities** – These can be minimized by better funding policies, plan design, and investment policies. Employers that fund the absolute minimum should not be surprised when unfunded liabilities develop.
- **Pension plans cost too much** – Many executives had come to think that there was no cost to a DB plan after years of funding holidays. We know better today. DB plans have a significant cost – providing a secure retirement income is an expensive proposition, whether it is done by the individual or through a pension plan. But as we have demonstrated, the cost can be up to 50 percent less in a DB plan. Those who believe that DC plans cost less may fail to recognize that they also deliver much less retirement income.
- **PBGC premiums** – Let's keep this cost in perspective. If the plan is well funded, the annual cost is only \$19 per person. Higher variable premiums can be avoided by funding the plan well.
- **Lack of portability** – Complete portability implies that people are indifferent to whether they stay with an employer or leave. That is usually the way a DC plan works once a participant is vested. Employers who want to lower turnover should view the lesser portability of a DB plan as an advantage.
- **No early access to funds** – Less than 40 percent of early distributions from qualified plans are rolled over to other retirement vehicles. DB plans that retain funds until retirement are accomplishing their goal much better than plans with early distribution.
- **Complex administration** – Some plans are difficult to administer, but this is often a result of complex design chosen by the plan sponsor. Straightforward plan design can simplify administration and enhance employee appreciation.
- **Lack of understanding and appreciation** – The typical DC plan provides quarterly print statements and online access to account balances so that employees can view and perhaps reallocate their account balances daily. The typical DB plan gives an annual estimate of the benefit payable at age 65. Is it any wonder that most employees know more about their DC plan? DB plans need to evolve to the Internet age with frequent access to benefit accruals and projections.

## Employee preferences: The real story on DB plans

A reason employers often give for moving to DC plans is that employees prefer them. New evidence and other actions of the past few years indicate that this is just a myth. While some employees prefer DC plans, others prefer traditional DB plans. Depending on the plan structure, employees at different ages and life stages benefit much more from one than the other.

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### Research

The recently published Society of Actuaries' Retirement Plan Preferences Study tells us:

- Employees tend to prefer the type of plan they have: employees with DB plans prefer them over DC.
- Both retirees and those nearing retirement say that lifetime income is very important to them.
- The plan features that employees prefer are linked to the type of plan they have.

Another study, from the American Association of Retired Persons (AARP), shows that disappointing returns and losses in 401(k) plans are forcing more senior employees to postpone retirement; 401(k) plans that looked as though they would make people rich don't look so good currently.

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### Experience

Our work with clients tells us:

- When employees are given a choice at time of transition, older and longer-service employees want to stay with their traditional DB plans.
- Public employees, when given a choice of a DC or a traditional DB plan, often choose the traditional DB plan.
- Rewards of high investment returns and expected continuation of high returns look great, but that promise is not working today – risk means that investment values go down as well as up.
- The public misunderstands investment risk, investment options, and the impact of variability.

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### The best approach

Is choice the best approach? If one knows what the future will bring, one can determine which type of plan will provide the better benefit. For young employees who will not stay long with a company, DC plans (or cash balance DB plans) are generally better than traditional DB plans. For employees who do stay a long time, the reverse is generally true.

But few employees (or employers) can accurately predict the future. Most organizations will have a diverse group of employees, some who will do better under DC plans, others who will benefit most from DB plans. Relying entirely on one type of plan assures that many employees will receive inadequate benefits. A balance of DB and DC plans is more likely to assure that all employees earn reasonable benefits and provide for a secure retirement.





## Looking forward: We need help

DB pension plans can create value and help Americans attain an economically secure retirement. They are highly desirable socially. But the deferred nature of the benefit, the employer risks associated with the plans, and the complex regulations and funding requirements have all contributed to the steady decline of worker participation in these plans.

The tax code should have a dual purpose – to encourage the establishment and funding of DB plans, and to assure that the retirement assets of American workers are secure and distributed fairly. Unfortunately, virtually all changes in legislation over the past 20 years have focused on the second purpose. Americans are not helped if plans are secure and fair but cover only a small portion of the workforce. The next initiative should create incentives for both employers and workers to create and participate in pension plans.

Legislative changes in three areas would greatly enhance the attractiveness of these plans to workers and employers alike:

1. Exempt from taxation a portion of the monthly benefit paid as a life annuity. Even a modest amount of tax-free income would create grass-roots demand for these plans among workers.
2. Create tax incentives for employers to establish and maintain DB plans. Greater tax deductions, tax credits, or similar incentives would encourage employers to take on the added risk and burden of a DB plan.
3. Simplify the administrative and funding regulations to lessen the burden of establishing and maintaining plans.

The challenges facing pension plans are profound. Major changes in public policy regarding retirement plans deserve serious consideration from our lawmakers, not just stopgap bills to deal with a temporary crisis. Mercer's CEO and president, Daniel L. McCaw, recently testified before the US House of Representatives on strengthening pension security for all Americans. His testimony was published in a special *Mercer Perspective on Retirement* in March 2004.

Mr. McCaw's statement provides recommendations in four areas:

- Assist employers in managing business risks.
- Reduce unnecessary administrative burdens.
- Level the playing field between DB and DC plans.
- Enhance incentives to establish and maintain plans.

Since Mr. McCaw's testimony, there have been further developments on other major issues relating to DB plans. In March, the issue of cash balance plans resurfaced, as Senator Tom Harkin (D-IA) appealed to employers, employees, legal scholars and analysts, the Treasury Department and the IRS, and all other regulators to work together to resolve the ambiguity surrounding the legality and viability of cash balance plans. He noted that the conversion requirements in the Treasury's proposal may be too restrictive and that companies need legal protection for past conversions. The Treasury proposal would only apply prospectively and would not address the status of cash balance plans or conversions under current law. Senator Harkin also acknowledged that congressional inaction could result in additional plan freezes.

Mercer applauds the senator's call for flexibility in retirement plan design and resolution of the inappropriate and potentially counterproductive risks now facing cash balance and other DB plan sponsors.



## In summary

In today's competitive labor market, most if not all employers need a competitive 401(k) or comparable plan. But relying on a DC plan as the sole retirement vehicle will be expensive and inefficient for employers who want to encourage lower turnover, facilitate retirement of older workers, and create value for their employees.

Diversification is a basic tenet of investment policy. It works well in retirement planning also. A steady, reliable income from Social Security and employer-sponsored DB plans, plus the income from assets accumulated in IRAs and DC plans, provides diversity of economic assets for the retiree. The security of the DB

plan helps the individual plan an appropriate retirement date, early or deferred, without having to be overly conservative or relying on optimistic investment results. As the retiree ages, the stable income can be supplemented by more or less income from the DC plans depending on investment results or longevity prospects.

Employers who balance the two well will see lower overall employment costs and a more productive workforce. Well-designed and well-communicated DB pension plans can create value and minimize employment costs.





## Editorial Policy

The *Mercer Perspective on Retirement* series contains articles written by senior Mercer consultants that reflect their unique insights and observations on a variety of important topics affecting retirement and benefit programs. The views expressed do not necessarily reflect the views and policies of Mercer Human Resource Consulting, Inc.

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